

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

IN RE APACHE CORP. SECURITIES  
LITIGATION

Civil Action No. 4:21-cv-00575

District Judge George C. Hanks, Jr.

Magistrate Judge Andrew M. Edison

CLASS ACTION

**DECLARATION OF AMY PHARR HEFLEY**

I, Amy Pharr Hefley, declare the following pursuant to 28 U.S.C. § 1746:

1. I am an attorney with the law firm of Baker Botts L.L.P., which is counsel of record for Defendants Apache Corporation, John J. Christmann IV, Timothy J. Sullivan, and Stephen J. Riney in the above-styled cause of action.

2. I am legally competent to make this declaration. I have personal knowledge and am familiar with the matters stated in this declaration, and all of the facts and statements contained herein are true and correct.

3. Attached as **Exhibit 1** is a true and correct copy of the Expert Report of Zachary Nye, PhD, dated April 7, 2023.

4. Attached as **Exhibit 2** is a true and correct copy of the Expert Report of Lucy P. Allen, dated June 16, 2023.

5. Attached as **Exhibit 3** is a true and correct copy of the Expert Reply Report of Zachary Nye, PhD, dated August 11, 2023.

6. Attached as **Exhibit 4** is a true and correct copy of the Surreply Report of Lucy P. Allen, dated September 8, 2023.

7. Attached as **Exhibit 5** is a true and correct copy of an article by David Hunn, titled “How one old-school scientist found the biggest oil field this year,” published by *Houston Chronicle*, dated January 6, 2017.

8. Attached as **Exhibit 6** is a true and correct copy of a report by Bank of America Merrill Lynch, titled “Apache Corp. 4Q16 Earnings Recap: lowering PO to \$60 on confirmed pivot to gas,” dated February 24, 2017.

9. Attached as **Exhibit 7** is a true and correct copy of a report by Bank of America Merrill Lynch, titled “Apache Corp. 4Q17 recap: medium term outlook helps visibility; but many question unanswered,” dated February 22, 2018.

10. Attached as **Exhibit 8** is a true and correct copy of a report by Bank of America Merrill Lynch, titled “Apache Corp. APA Monetizing Alpine High midstream though not an outright sale; U/G to MW,” dated August 8, 2018.

11. Attached as **Exhibit 9** is a true and correct copy of a report by Credit Suisse, titled “Apache Corporation Lowering 4Q CFPS on Weak Price Realizations,” dated January 24, 2019.

12. Attached as **Exhibit 10** is a true and correct copy of a report by Bank of America Merrill Lynch, titled “Apache Corp. Capital discipline: but lower guidance still not enough to offset the mix shift to gas,” dated February 8, 2019.

13. Attached as **Exhibit 11** is a true and correct copy of a report by Dow Jones Institutional News, titled “Free Permian Gas More Common as Pipeline Bottlenecks Worsen--Market Talk,” dated Mach 25, 2019.

14. Attached as **Exhibit 12** is a true and correct copy of a report by MUFG Securities Americas Inc., titled “Apache Corp. Turning A Corner Cryogenically in the Second Half?,” dated May 2, 2019.

15. Attached as **Exhibit 13** is a true and correct copy of an Apache press release, titled “Apache Corporation Announces Temporary Deferral of Alpine High Natural Gas Production in Response to Recent Pricing at Waha Hub,” dated April 23, 2019.

16. Attached as **Exhibit 14** is a true and correct copy of a report by Macquarie Research, titled “Apache Corp. (APA US) Effects of Negative Waha Prices,” dated April 23, 2019.

17. Attached as **Exhibit 15** is a true and correct copy of a report by Stephens, titled “First Look: APA Announces Temporary Deferral of Alpine High Gas Volume,” dated April 23, 2019.

18. Attached as **Exhibit 16** is a true and correct copy of a report by Scotia Howard Weil, titled “Alpine High Natural Gas Production Deferred Due to Pricing,” dated April 23, 2019.

19. Attached as **Exhibit 17** is a true and correct copy of an article by Michael Bellusci, titled “Apache Gas Deferral to Have Minimal 2Q CFPS Impact: Capital One,” published by *Bloomberg*, dated April 23, 2019.

20. Attached as **Exhibit 18** is a true and correct copy of a report by Cowen, titled “1Q19 Preview: Keeping One’s Vows,” dated April 26, 2019.

21. Attached as **Exhibit 19** is a true and correct copy of a report by Barclays, titled “Estimated Alpine High Base Production Breakevens Now vs. YE’19; Model Update for Deferrals,” dated April 28, 2019.

22. Attached as **Exhibit 20** is a true and correct copy of a report by SunTrust Robinson Humphrey, titled “Initiating with a Buy Rating and \$32 Price Targe; Standing Down at Alpine High,” dated September 23, 2019.

23. Attached as **Exhibit 21** is a true and correct copy of a report by Cowen, titled “Oil Patch Bus Tour Takeaways,” dated October 7, 2019.

24. Attached as **Exhibit 22** is a true and correct copy of a report by J.P. Morgan, titled “Apache Corp. 3Q19 Preview: Diet for Alpine High in 2020; Well Watching in Suriname,” dated October 14, 2019.

25. Attached as **Exhibit 23** is a true and correct copy of a report by Bank of America Merrill Lynch, titled “Apache Corp. Suriname exploration: too big to ignore, too uncertain to Buy. Upgrade to Neutral,” dated October 18, 2019.

26. Attached as **Exhibit 24** is a true and correct copy of a report by Barclays, titled “Alpine High on Ice: 2020/2021 Breakeven Analysis; Q3’19 Preview,” dated October 21, 2019.

27. Attached as **Exhibit 25** is a true and correct copy of a news alert by Bloomberg News, titled “Apache: SVP Of Worldwide Exploration Steven Kennan Resigned,” dated October 25, 2019.

28. Attached as **Exhibit 26** is a true and correct copy of a report by RBC Capital Markets, titled “APA-SVP Resignation Causing Stock Weakness; Company Indicating Not Related to Maka-1 Outcome,” dated October 25, 2019.

29. Attached as **Exhibit 27** is a true and correct copy of a report by Credit Suisse, titled “Apache Corporation Resignation of Exploration Head Highlights Suriname Risk to Share Price,” dated October 25, 2019.

30. Attached as **Exhibit 28** is a true and correct copy of a report by SunTrust Robinson Humphrey, titled “Apache Corporation (APA) Resignation not Linked to Upcoming Suriname Well Result,” dated October 25, 2019.

31. Attached as **Exhibit 29** is a true and correct copy of a report by Morgan Stanley, titled “Apache Corp. Suriname... The Next Guyana?,” dated October 29, 2019.

32. Attached as **Exhibit 30** is a true and correct copy of a report by RBC Capital Markets, titled “APA-3Q19 CFPS Beat Consensus; Suriname Well Still Drilling,” dated October 30, 2019.

33. Attached as **Exhibit 31** is a true and correct copy of a report by Credit Suisse, titled “Apache Corporation 3Q Beat, but Tempers 4Q Guidance & 2020 Capex; Raising Estimates on Cost Cuts/Shift to Oilier Plays,” dated October 31, 2019.

34. Attached as **Exhibit 32** is a true and correct copy of an article by Rebecca Elliott, titled “Apache Shares Plunge Following Scant Update on South American Oil Prospect; Investors were awaiting results on Suriname well; company didn’t say whether it struck oil,” published by *The Wall Street Journal*, dated December 2, 2019.

35. Attached as **Exhibit 33** is a true and correct copy of Apache's February 26, 2020 earnings release.

36. Attached as **Exhibit 34** is a true and correct copy of a report by J.P. Morgan, titled "Apache Corp. 4Q19 Post Mortem and Model Update," dated February 27, 2020.

37. Attached as **Exhibit 35** is a true and correct copy of the Proclamation on Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak, issued by President Trump on March 13, 2020.

38. Attached as **Exhibit 36** is a true and correct copy of an article by Avie Schneider, titled "Stocks Go Into Shock. Dow Plunges Nearly 3,000 Points," published by *NPR*, dated March 16, 2020.

39. Attached as **Exhibit 37** is a true and correct copy of an article by Sarfaraz A. Khan, titled "The Oil Price Crash Puts Apache Corporation in A Tough Spot" published by *Seeking Alpha*, dated March 16, 2020.

40. Attached as **Exhibit 38** is a true and correct copy of a report by Susquehanna Financial Group, LLLP, titled "Sector Update: Downgrading APA, NBL, OXY to Neutral; Upgrade COG to Positive," dated March 16, 2020.

41. Attached as **Exhibit 39** is a true and correct copy of an article by Gunjan Banerji, titled "Traders Bet on Falling 'Fear Gauge,'" published by *Dow Jones Institutional News*, dated March 17, 2020.

42. Attached as **Exhibit 40** is a true and correct copy of an article by Jim Sargent and Veronica Bravo, titled "How does this bear market compare," published by *USA Today*, dated March 18, 2020.

43. Attached as **Exhibit 41** is a true and correct copy of Apache's July 29, 2020 earnings release.

44. Attached as **Exhibit 42** is a true and correct copy of Apache's July 30, 2020 earnings call transcript.

45. Attached as **Exhibit 43** is a true and correct copy of Apache's May 6, 2021 earnings call transcript.

46. Attached as **Exhibit 44** is a true and correct copy of the deposition transcript of Zachary Nye, dated November 8, 2023.

47. Attached as **Exhibit 45** is a true and correct copy of an article by Marwan M. Abdeldayem and Ramzi Nekhili, titled "Credit Rating Changes and Stock Market Reaction in the Kingdom of Bahrain," published by the *International Journal of Economics and Finance*, dated July 25, 2016.

48. Attached as **Exhibit 46** is a true and correct copy of an article by Lucy P. Allen and Jorge Baez, titled "The Short-Term Effect of Goodwill Impairment Announcements on Companies' Stock Prices," published in the *International Journal of Business Accounting and Finance* (Vol. 14(2), 2020).

49. Attached as **Exhibit 47** is a true and correct copy of an article by Andrew C. Baker, titled "Single-Firm Event Studies, Securities Fraud, and Financial Crisis: Problems of Inference," published by the *Stanford Law Review*, dated May 2016.

50. Attached as **Exhibit 48** is a true and correct copy of an article by Campbell R. Harvey, titled "Presidential Address: The Scientific Outlook in Financial Economics," published by *The Journal of Finance*, dated August 2017.

51. Attached as **Exhibit 49** is a true and correct copy of an article by James Dow and Gary Gorton, titled “Trading, Communication and the Response of Asset Prices to News,” published by *The Economic Journal*, dated May 1993.

52. Attached as **Exhibit 50** is a true and correct copy of excerpts an article by Ralf Elsas and Daniela S. Schoch, titled “Robust inference in single firm/single event analyses,” published by the *Journal of Corporate Finance*, dated March 6, 2023.

53. Attached as **Exhibit 51** is a true and correct copy of the abstract of an article by Daniele Fanelli, titled “Negative results are disappearing from most disciplines and countries,” published by *Springer Link*, dated September 11, 2011.

54. Attached as **Exhibit 52** is a true and correct copy of an article by Jill E. Fisch, Jonah B. Gelbach, and Jonathan Klick, titled “The Logic and Limits of Event Studies in Securities Fraud Litigation,” published in the *Texas Law Review*, (Vol. 3, 2016), along with accompanying appendix materials.

55. Attached as **Exhibit 53** is a true and correct copy an article by David H. Kaye and David A. Freedman, titled “Reference Guide on Statistics,” excerpted from the *Reference Manual on Scientific Evidence* (Washington, D.C.: Federal Judicial Center, 3rd ed., 2011).

56. Attached as **Exhibit 54** is a true and correct copy of an article by Sanford J. Grossman and Joseph E. Stiglitz, titled “On the Impossibility of Informationally Efficient Markets,” dated June 1980.



57. Attached as **Exhibit 55** is a true and correct copy of an article by Dr. Branko Jovanovic and Edward Fox, titled “Testing for Materiality in Volatile Markets,” published by *NERA Economic Consulting*, dated January 12, 2010.

58. Attached as **Exhibit 56** is a true and correct copy of an article by Lee Kennedy-Shaffer, titled “When the Alpha is the Omega: P-Values, ‘Substantial Evidence,’ and the 0.05 Standard at FDA,” published in *Food Drug Law Journal*, 72(4): 2017.

59. Attached as **Exhibit 57** is a true and correct copy of an article by Albert S. Kyle, titled “Continuous Auctions and Insider Trading,” published in *Econometrica*, dated November 1985.

60. Attached as **Exhibit 58** is a true and correct copy of an article by A. Craig Mackinlay, titled “Event Studies in Economics and Finance,” published by the *Journal of Economic Literature*, dated March 1997.

61. Attached as **Exhibit 59** is a true and correct copy of an article by Robert Rosenthal, titled “The ‘File Drawer Problem’ and Tolerance for Null Results,” published in the *Psychological Bulletin*, (Vol. 86(3), 1979).

62. Attached as **Exhibit 60** is a true and correct copy of an article by Robert Savickas, titled “Event-Induced Volatility and Tests for Abnormal Performance,” published in *The Journal of Financial Research* (Vol. 16, 2003).

63. Attached as **Exhibit 61** is a true and correct copy an article by Uri Simonsohn, Leif D. Nelson, and Joseph P. Simmons, titled “p-Curve and Effect Size: Correcting for Publication Bias Using Only Significant Results,” published in *Perspectives on Psychological Science*, (Vol. 9, 2014).

64. Attached as **Exhibit 62** is a true and correct copy of an article by X. Frank Zhang, titled “Information Uncertainty and Stock Returns,” published by *The Journal of Finance*, dated February 2006.

65. Attached as **Exhibit 63** is a true and correct copy of *Barrie v. Intervoice-Brite, Inc.*, 409 F.3d 653 (5th Cir. 2005).

66. Attached as **Exhibit 64** is a true and correct copy of *Bricklayers & Trowel Trades International Pension Fund v. Credit Suisse Securities (USA) LLC*, 752 F.3d 82 (1st Cir. 2014).

67. Attached as **Exhibit 65** is a true and correct copy of a memorandum opinion issued in *Delaware County Employees Retirement System v. Cabot Oil & Gas Corp., et al.*, Case 4:21-cv-02045 (S.D. Tex.), dated September 27, 2023.

68. Attached as **Exhibit 66** is a true and correct copy of a memorandum opinion and order issued in *The Erica P. John Fund, Inc. v. Halliburton Company and David J. Leasar., et al.*, Case 3:02-cv-1152-M (N.D. Tex.), dated July 25, 2015.

69. Attached as **Exhibit 67** is a true and correct copy of *In Re TECO Energy Inc. Securities Litigation*, 2006 WL 845161 (M.D. Fla. March 30, 2006).

70. Attached as **Exhibit 68** is a true and correct copy of *Rooney v. EZCORP, Inc.*, 330 F.R.D. 439 (W.D. Tex. 2019).

71. Attached as **Exhibit 69** is a true and correct copy of a memorandum opinion and order issued in *Ramirez v. Exxon Mobil Corp.*, No. 3:16-CV-03111-K (N.D. Tex.), dated August 21, 2023.

72. Attached as **Exhibit 70** is a true and correct copy of the Expert Report of Lucy P. Allen, filed in *Jacob J. Beckel v. Fagron Holdings USA, LLC*, No. 8:16-cv-02059 (M.D. Fla.), dated November 16, 2018.

73. Attached as **Exhibit 71** is a true and correct copy of the “CBOE VIX Index,” published by *CBOE*.

74. Attached as **Exhibit 72** is a true and correct copy of the definition of “Shut-in,” published by *Merriam Webster Online*.

75. Attached as **Exhibit 73** is a true and correct copy of the article “What is VIX and What Does it Measure?”, published by the *S&P Dow Jones Indices*.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 29, 2023.

  
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Amy Pharr Hefley